

GEORGE ENGELMANN BOTANICAL NOTEBOOKS

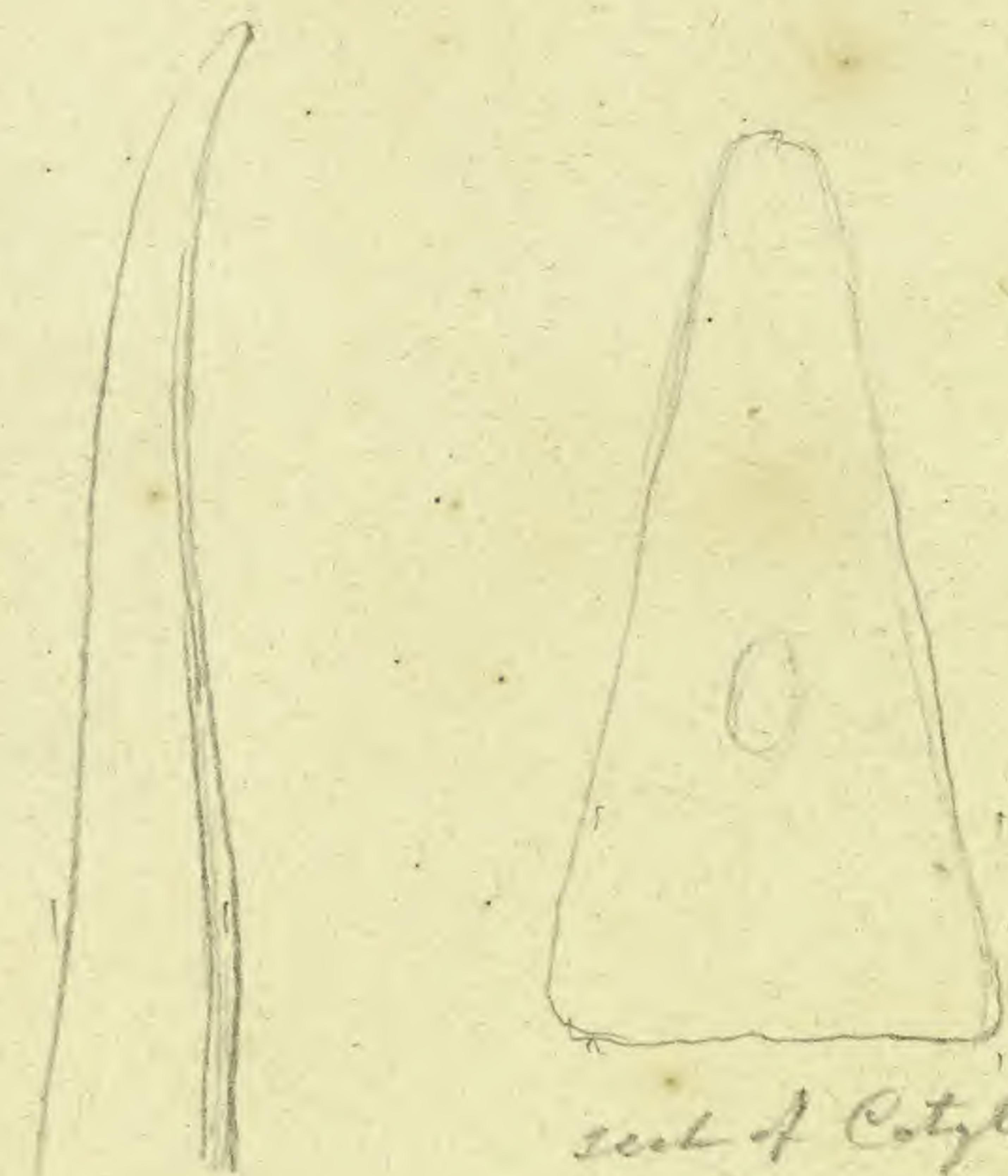
*Pagination Note:
Since many of the items lack a specific
page number, the page number displayed
online refers to the sequentially created
number each item was given upon
cataloging the materials.*

Pinn. amplexicaulis

Octob 16 1878

8' Mellickamp miss.

Dry & sooty



few and short primary leaves
acute, but not cuspidate,
or only acutish
teeth few and very short



0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI
BOTANICAL
GARDEN

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SOUTH-EAST CORNER FOURTH AND MARKET STREETS,

ST. LOUIS.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

89561



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cm

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Prunus Elliottii

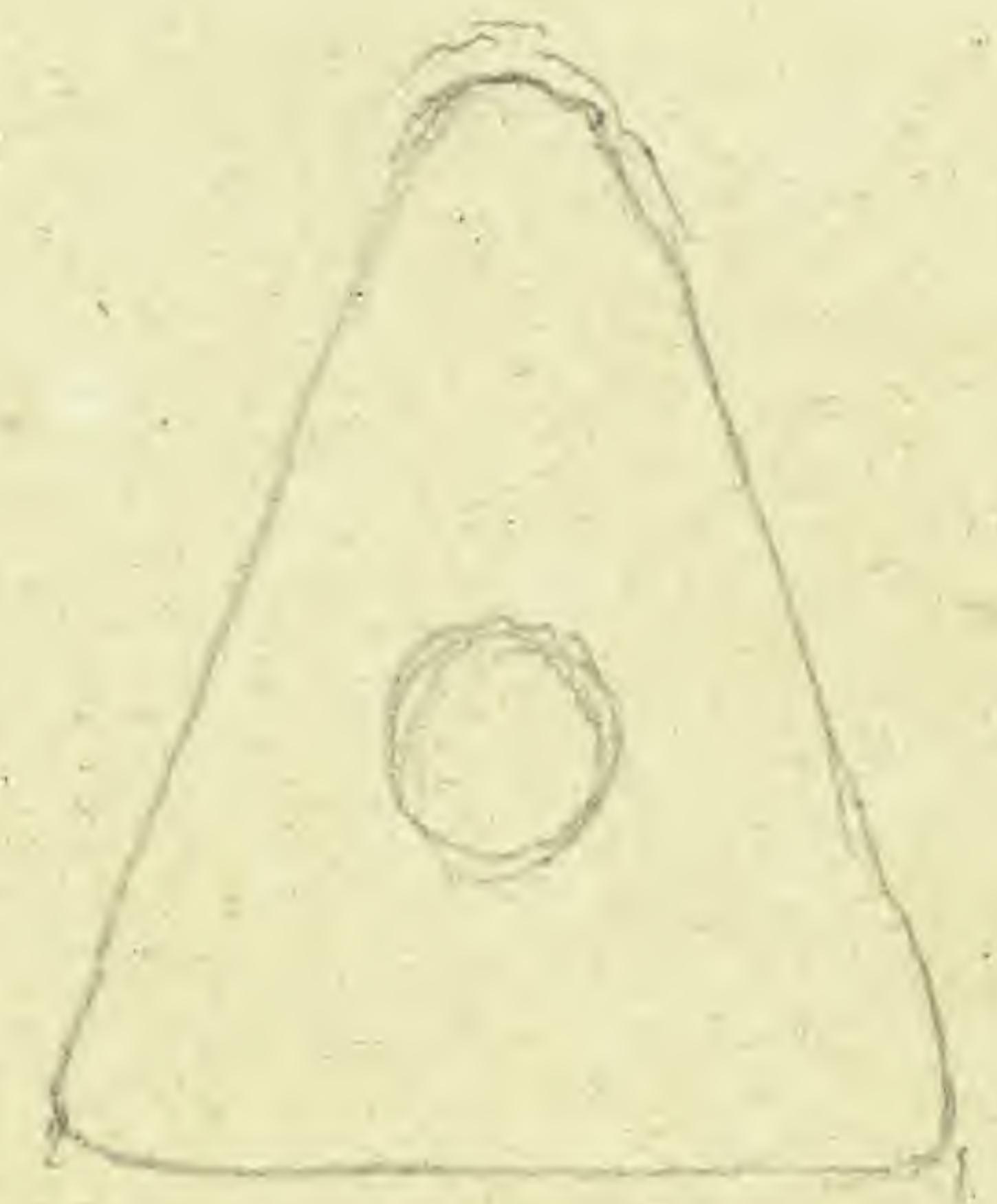
Oct 16 1878

Smallberg mis.

dry &
soaked

Cotyledon

$\times 10$



seed of Cotyledon

$\times 30$



seed of earliest
leaves $\times 30$

$\times 10$

pett. small and
 $\times 60$ rather sparingly



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cm

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Pines from Person
A. Douglass' nursery, Weddington, N.C.
Oct 10 1878

7-8 Oct

middle part
of person by

x 30

very few
good small
teeth

Primary leaf

x10

ghost teeth toward
the top, few below

Cotyledon x 10

reel entire



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Druggist,

301 South Fifth, S. W. Cor. 5th & Myrtle, St. Louis, Mo.

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
09601

"Pinus Corsia"

A Douglas' nursery, Waukegan

Oct 14 1878

frb



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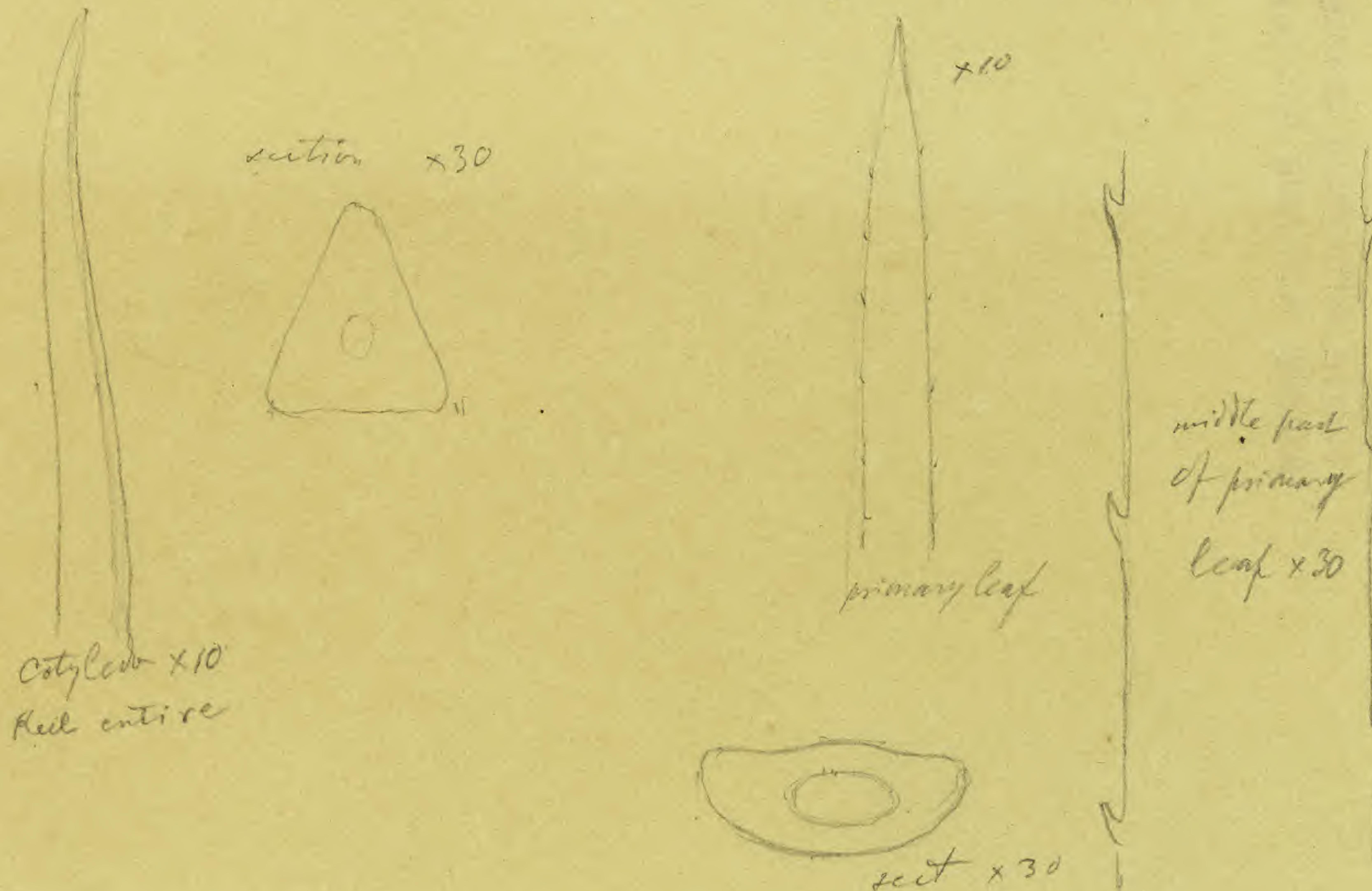
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Pinus sylvestris

R. Douglas' nursery, Waukegan

Oct 14 1878

fresh



B



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29b01

"Pinus montana"

R. Douglas' nursery, Waukegan

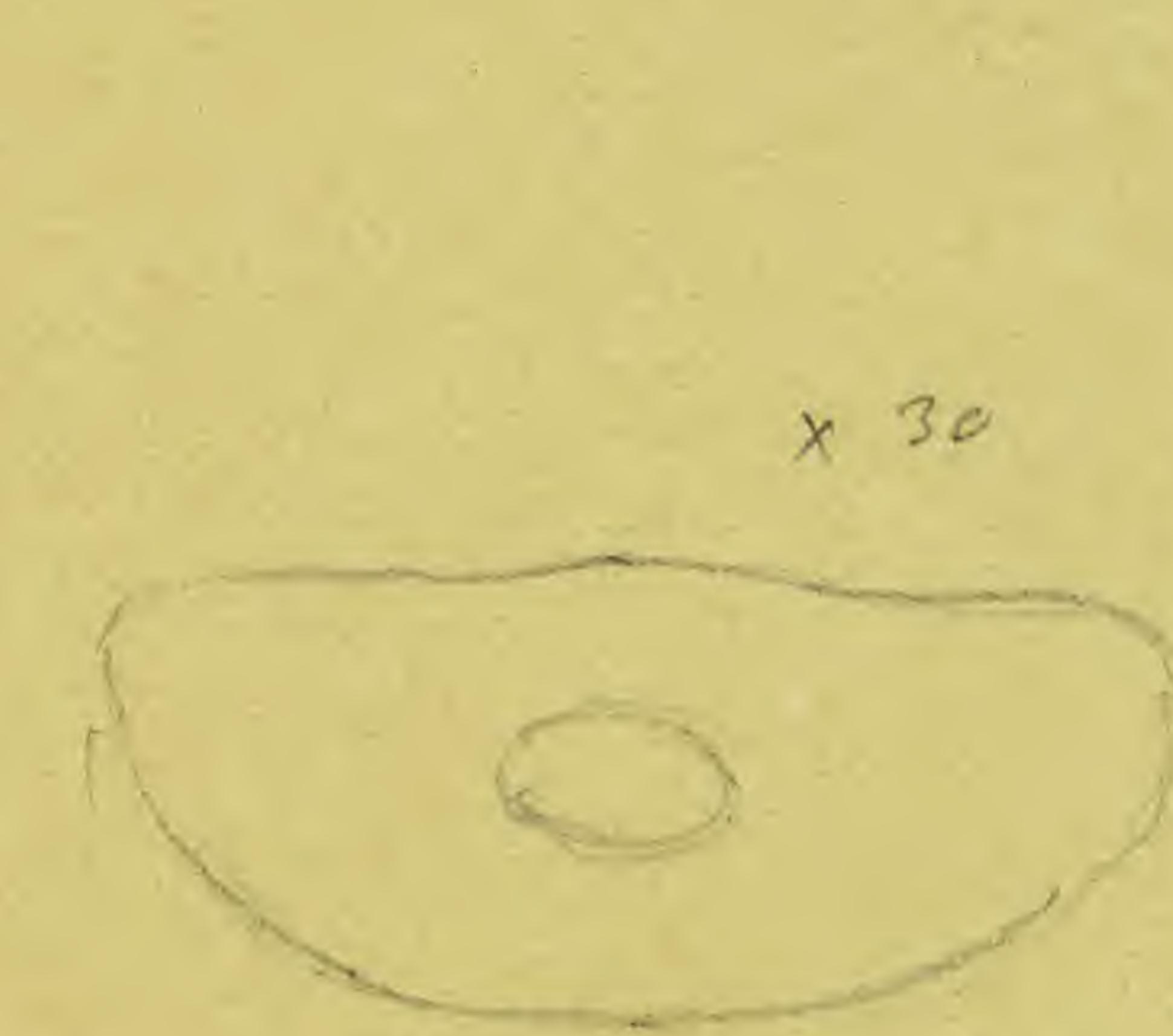
Oct 14 1878

$\times 10$



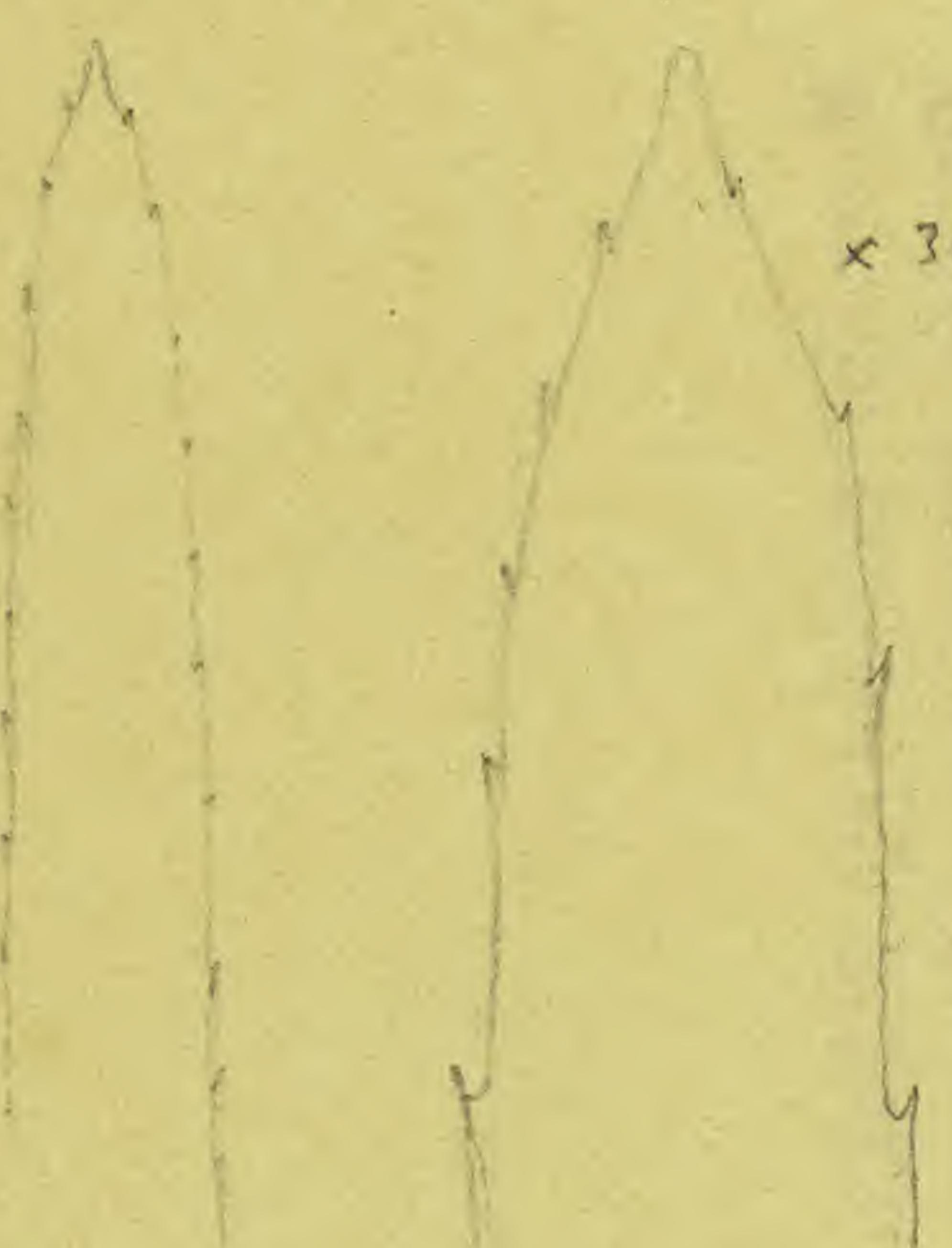
cotl sect.

$\times 30$



leaf sect.

$\times 10$



top of primary leaf

$\times 30$

second series
stomata on both
sides

style x 10

without teeth

7. Cotyl.
- 3 spec.

W.B. LINDNER
L. MORRISON
D. LINDNER
S. LINDNER

B



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cm

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cm

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30961

x66

seedling leaves
cotyledon

271

scut.

1.

6.

7.

leaf 20-24 mm

2. Tae da ?

28 mm long

no teeth

on midrib

D. Cariottii leaf 34 mm long

upper midrib very sparsely toothed



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cm

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GARDEN

HOEELKE BROS.,

[Successors to SAMUEL D. HENDEL]

Apothecaries & Chemists

S. W. Corner of 6th and Market Streets,
ST. LOUIS, MO.

Al

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0 1 2 3 4 5 6 7 8 9 10
cm

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10964

6 tab

3

P. monticola

24-9



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cm

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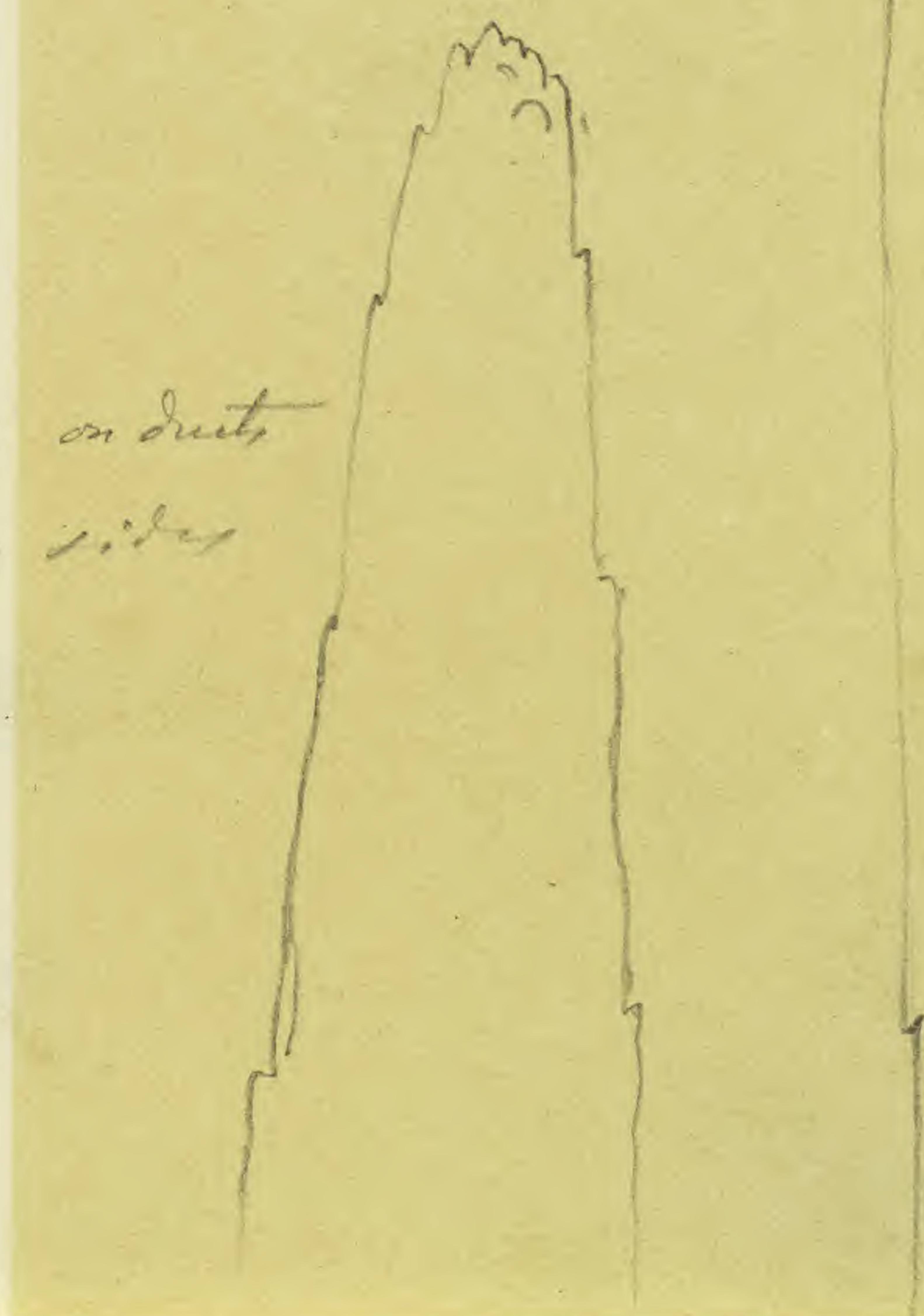
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P. monticola
Oregon, Hall

June 26 1873



hypodium all around
none or very few cells on ducts
2-6 series of stoma on sides
none on back



few, small, very distinct
teeth

B



0 1 2 3 4 5 6 7 8 9 10

cm

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R



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cm

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monticola?

June 27 1878

Eggersen by - Fowles Exp.

x 30



x 30



x 60



this hypoderm all around
now on ducts
3 series of stomata on both sides
now on bark

Westling L. Hornemann
Dictionary



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cm

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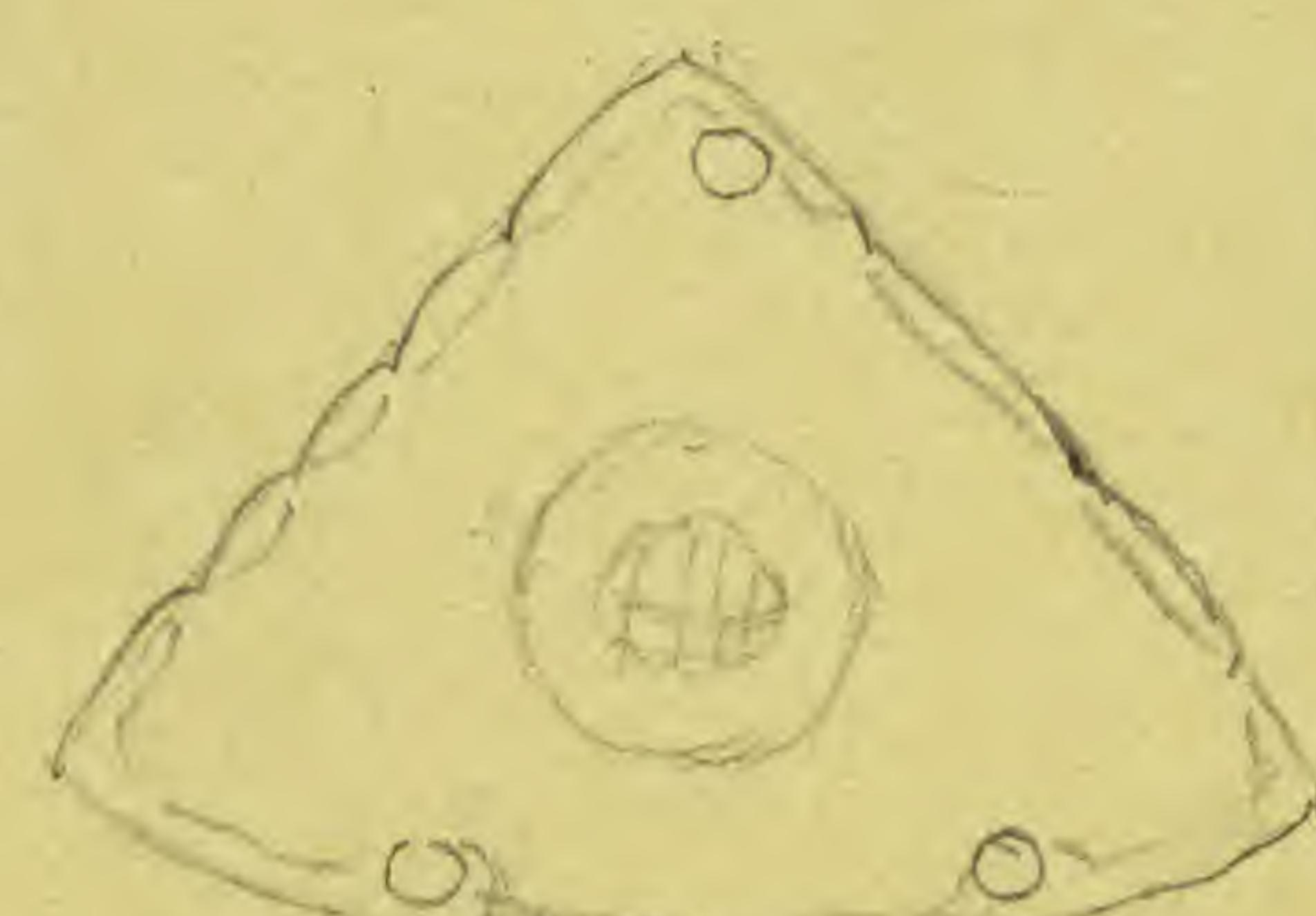
29bQ1

leaves 1.0 mm wide

P. monticola var

Big tree from Calif. Bolander 22 July 1866

June 26 1878



$\times 30$



$\times 30$

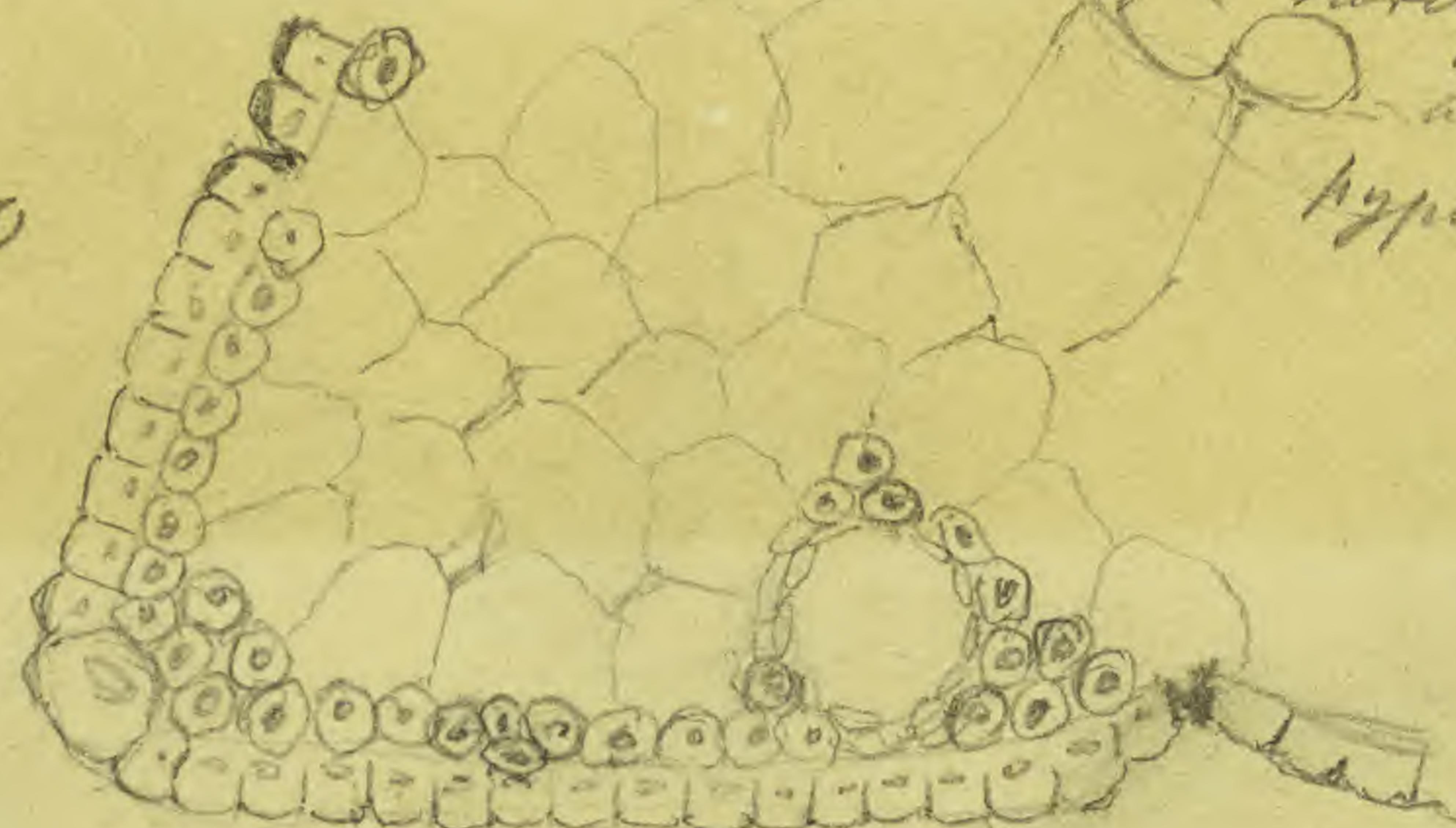
2-4 series of stomata on sides
usually 1 on back, toward top.
hypoderm all around

2-4 ducts,
all periph.
rarely with
a few
hypoderm cells

$\times 60$

teeth small, and
26 mm or more
apart!
only toward tip
close

$\times 150$



VILMUS VILMUS



0 1 2 3 4 5 6 7 8 9 10

cm

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R



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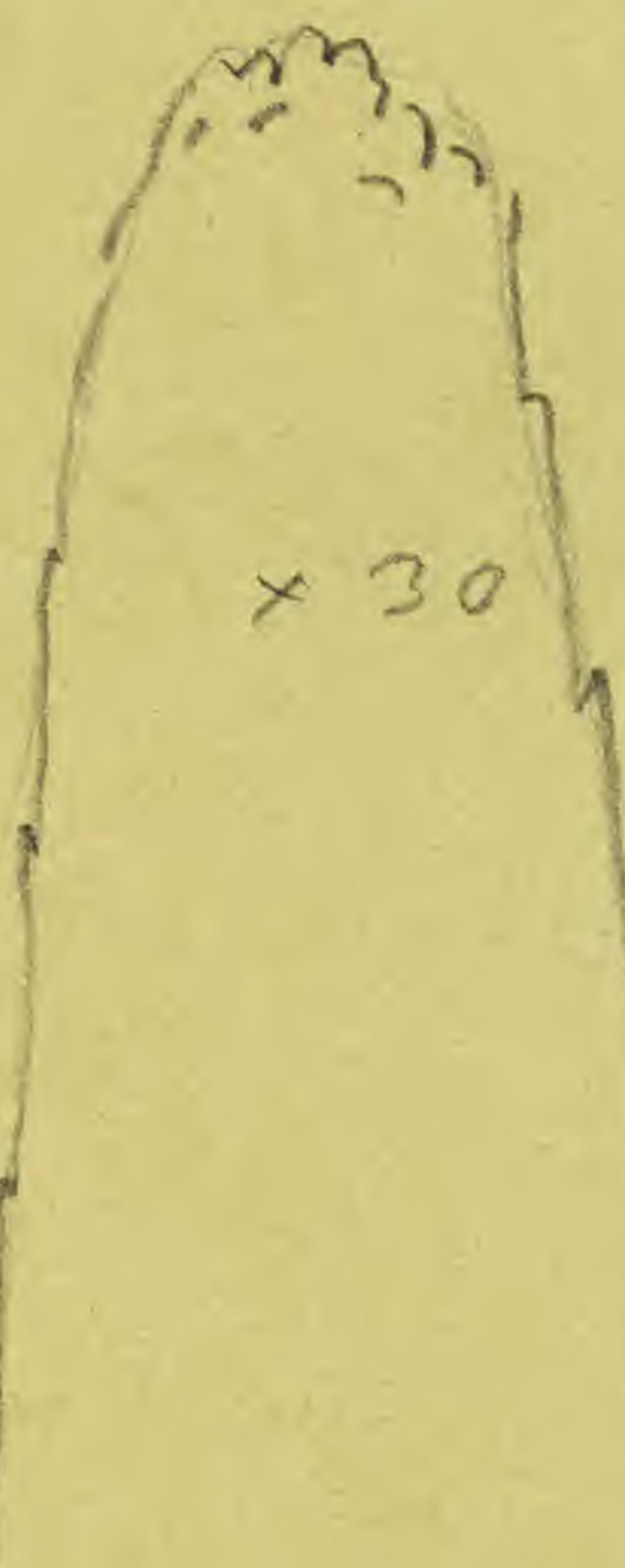
29601

P. monticola
Casades, Lyall

Done 26 1878



x 30



x 30



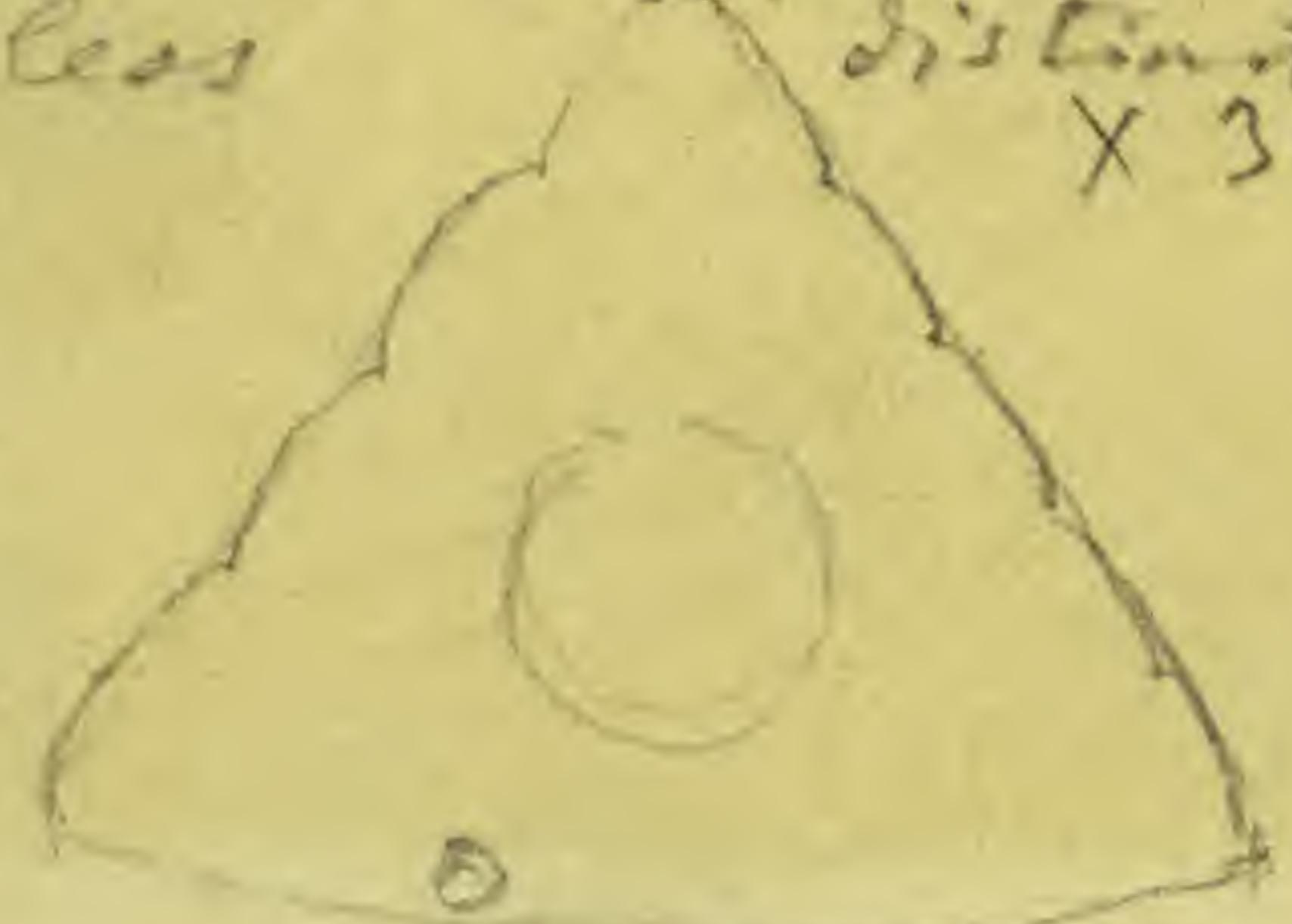
x 60

modly only one duct.
without hypoderm
and hypoderm all around

distinct teeth small
only more crowded
toward tip.

Cult Grapemo - 1869 Sept

ducts simple hypoderm all around but
less distinct than in wild plant
when strong



x 30

indentation
same as in
Lyall's
very minute & scant



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cm

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R



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cm

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P. monticola July 9 1877
Colombia - Bolívar



8 scales of Pinol
the outer lateral half
as long as the inner one



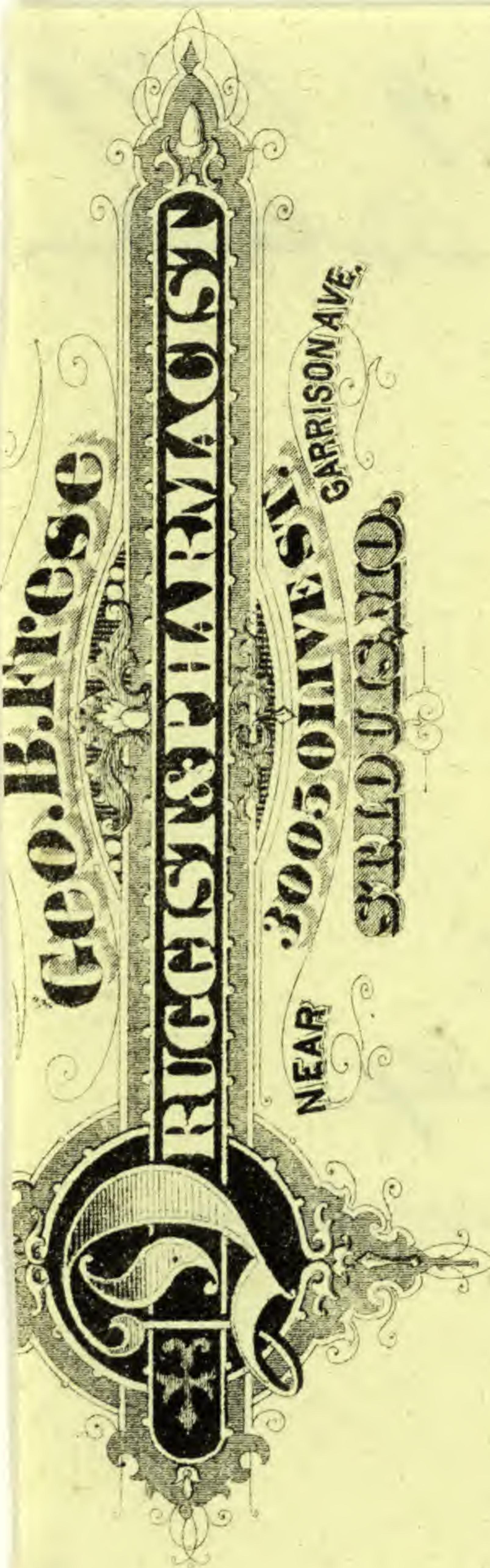
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cm

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GEO. B. KRUSE

DRUGGISTS & PHARMACEUTISTS

NEAR 3005 OLIVE ST.
GARRISON WAVE,
ST. LOUIS, MO.

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OLb01
DR. GEO. ENGELMANN,
OFFICE 201 S. 5th St. RESIDENCE 3003 Locust St.



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cm

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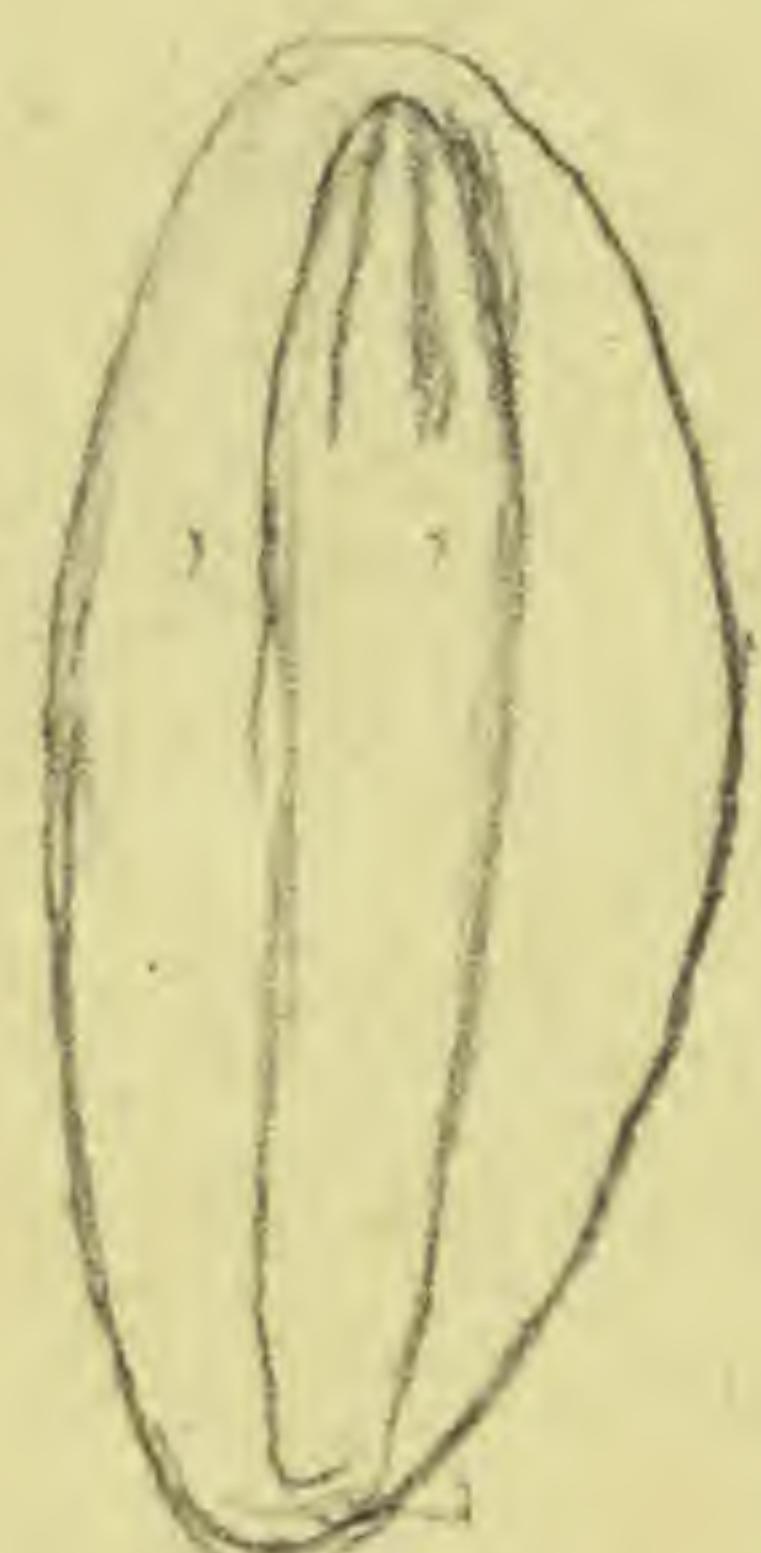


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Pinus monticola

July 10 1879

x4



6	Cystid	1
7	—	1
8	—	3
9	—	1



0 1 2 3 4 5 6 7 8 9 10
cm

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APOTHECARY.

No. 2600 Faedde Ave., S. W. Cor. Jefferson Ave.
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10971



0
cm

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5 tab

4

P. Lambertiana

30-4



0 1 2 3 4 5 6 7 8 9 10
cm

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cm

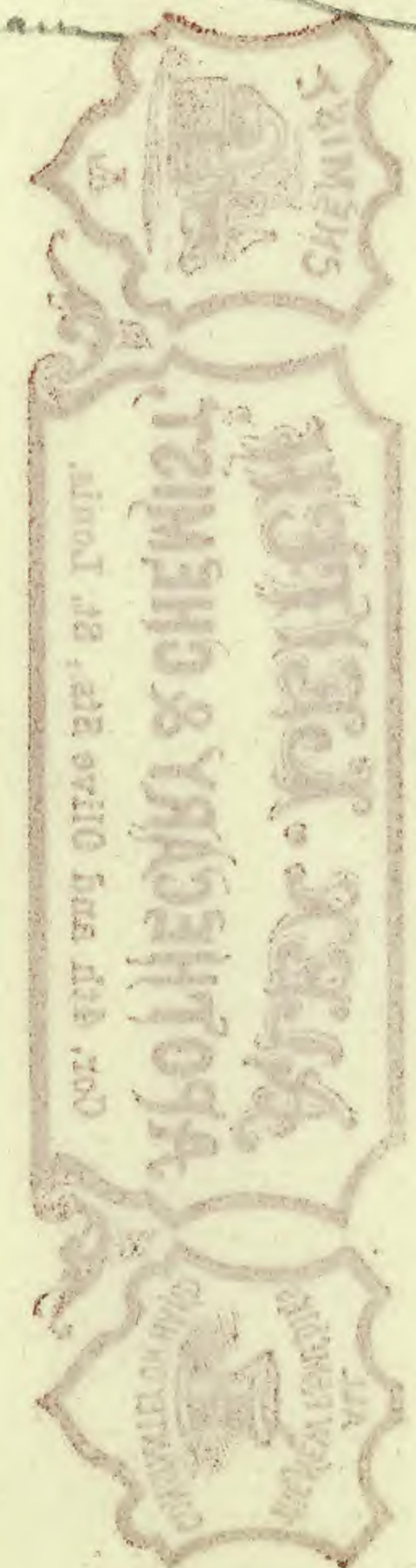
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Pinus Lambertiana
Carson Valley

H. Engelmann Nov 1862



Cone 13 inches long

Scales $\frac{34}{55}$ arrangement
sub 6-7 lines long



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cm

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GEORGE ENGELMANN PAPERS
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cm

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EL 901

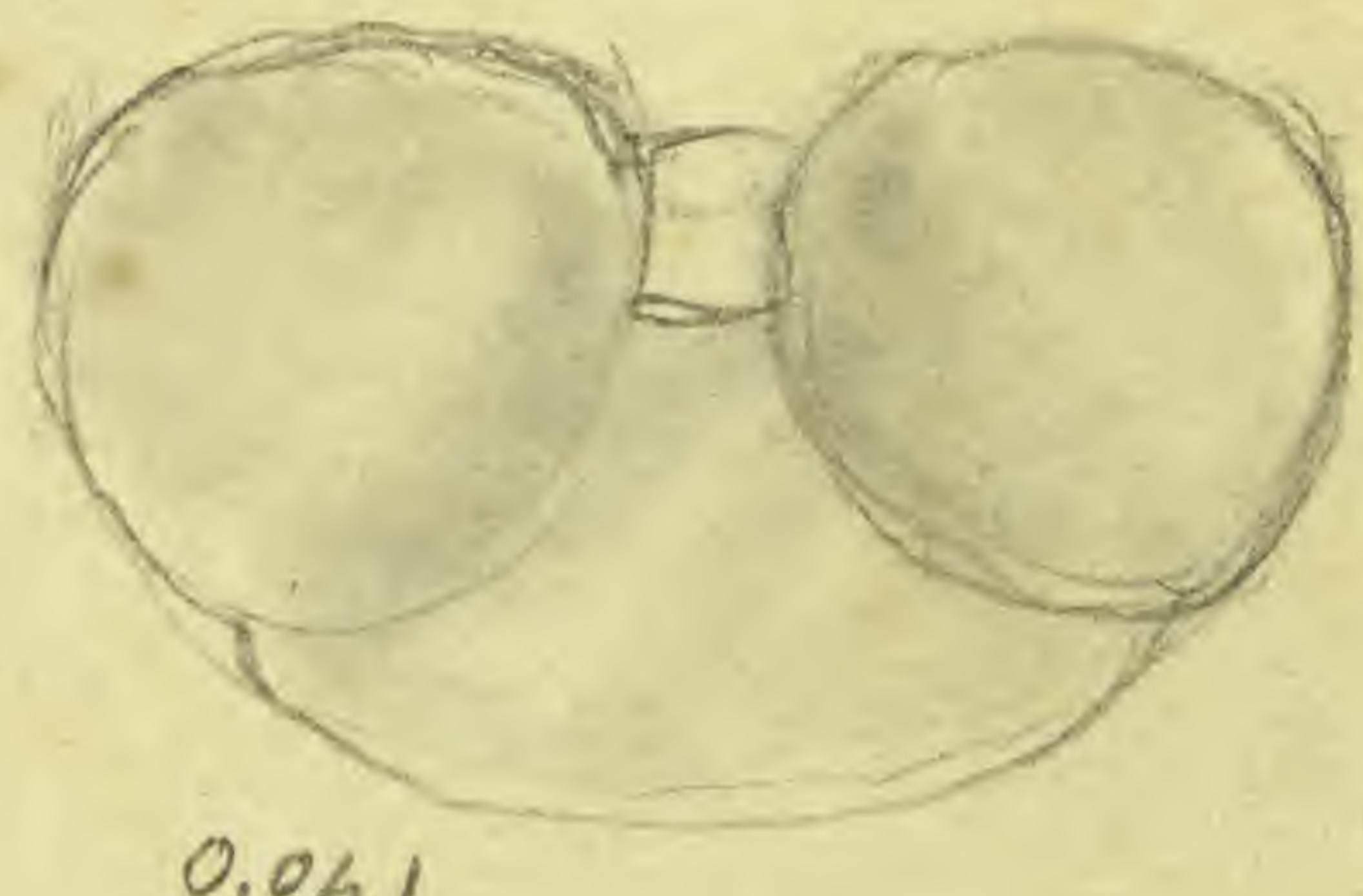
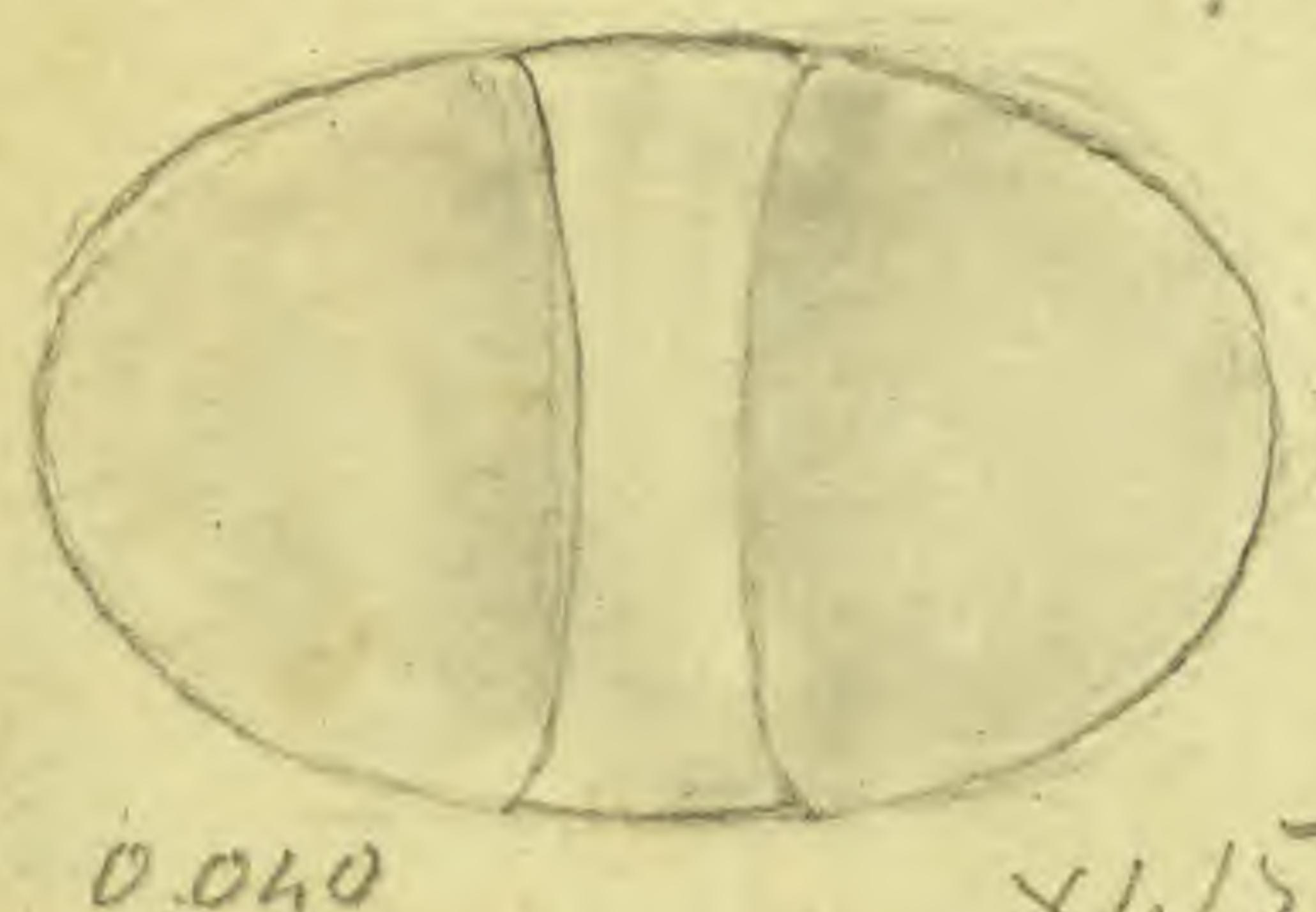
Page 25- 1863

Pinus Lambertiana

mountains east of San Diego, California
not fully open

Dr. Gray June 1850

axis of inflor.
8 lines long



0.039 - 0.043 mean 0.041

anthers 2
13 mic.
mm



before anthesis
14-16 smooth
shiny, copper
ovule broad scales
of involucre



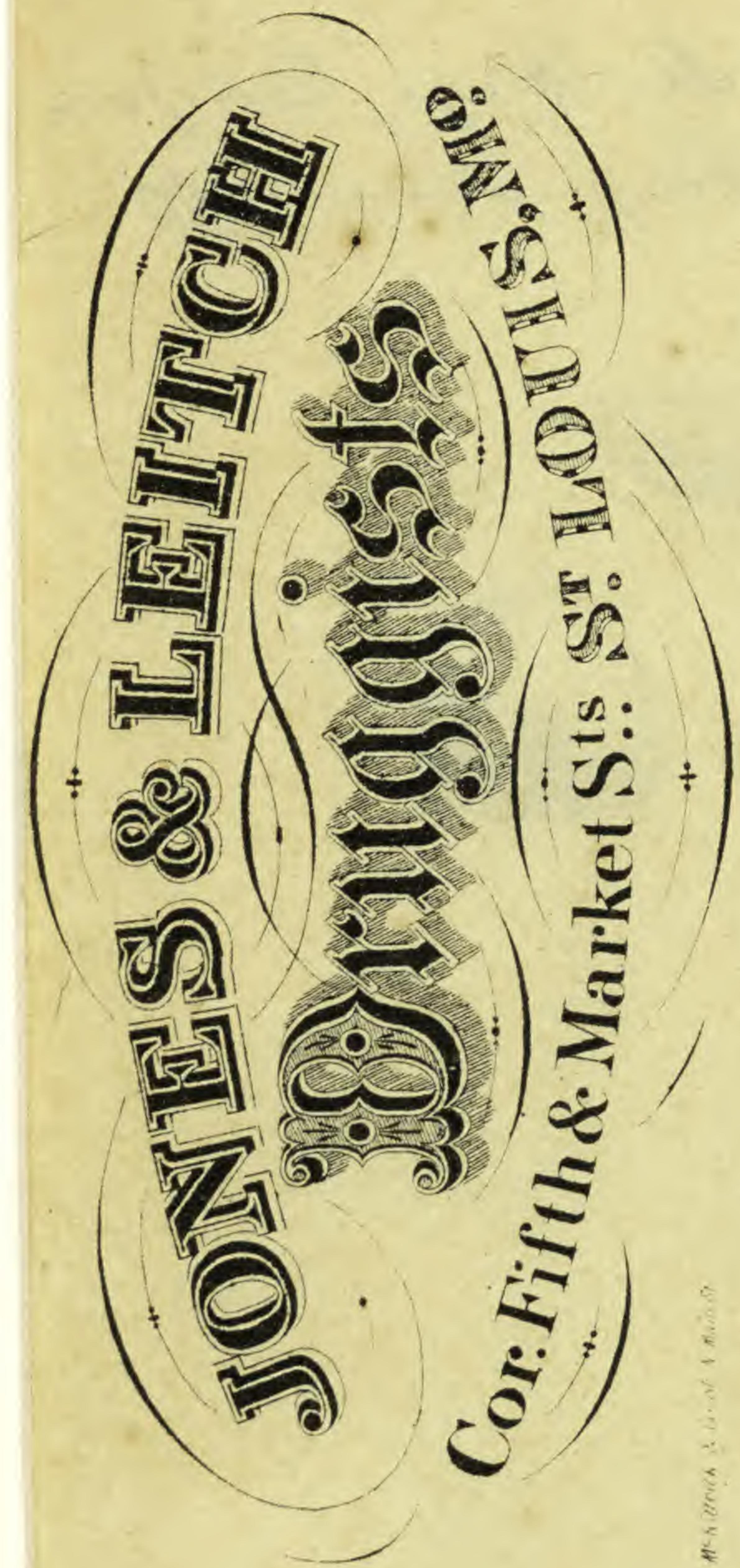
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P. Lambertiana

San Diego,

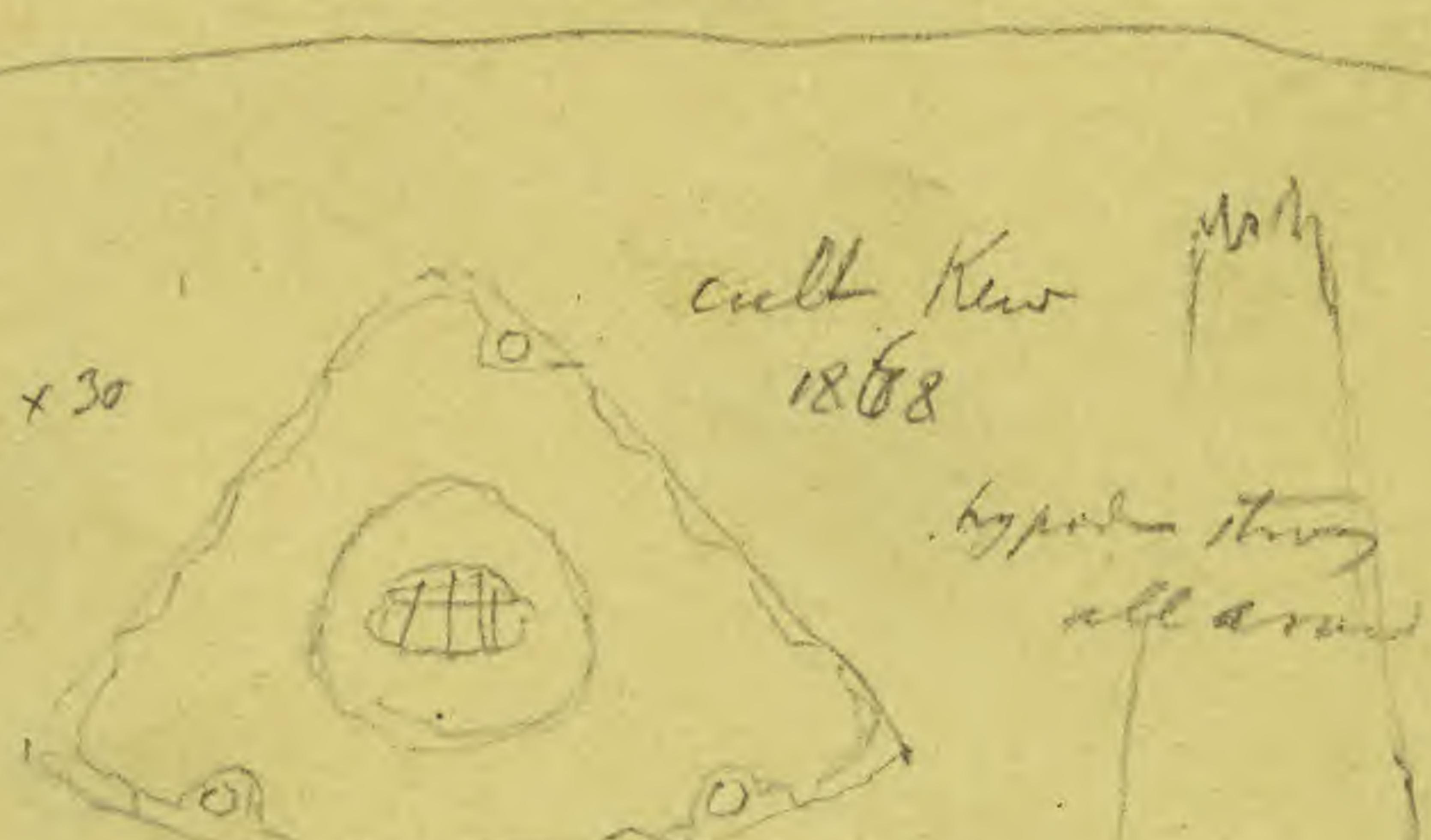
Parry 1250

June 27 1878

leaf not much more
than 1 "^{mm}" wide



hypoderm cells all around, also
surrounding ducts
stomata on all sides 3-5 series



stomata on all sides, ducts 2 or 3
surrounded by hypoderm

San Diego

x60

x60 Kew



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cm

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cm

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575

Pin lambertianum

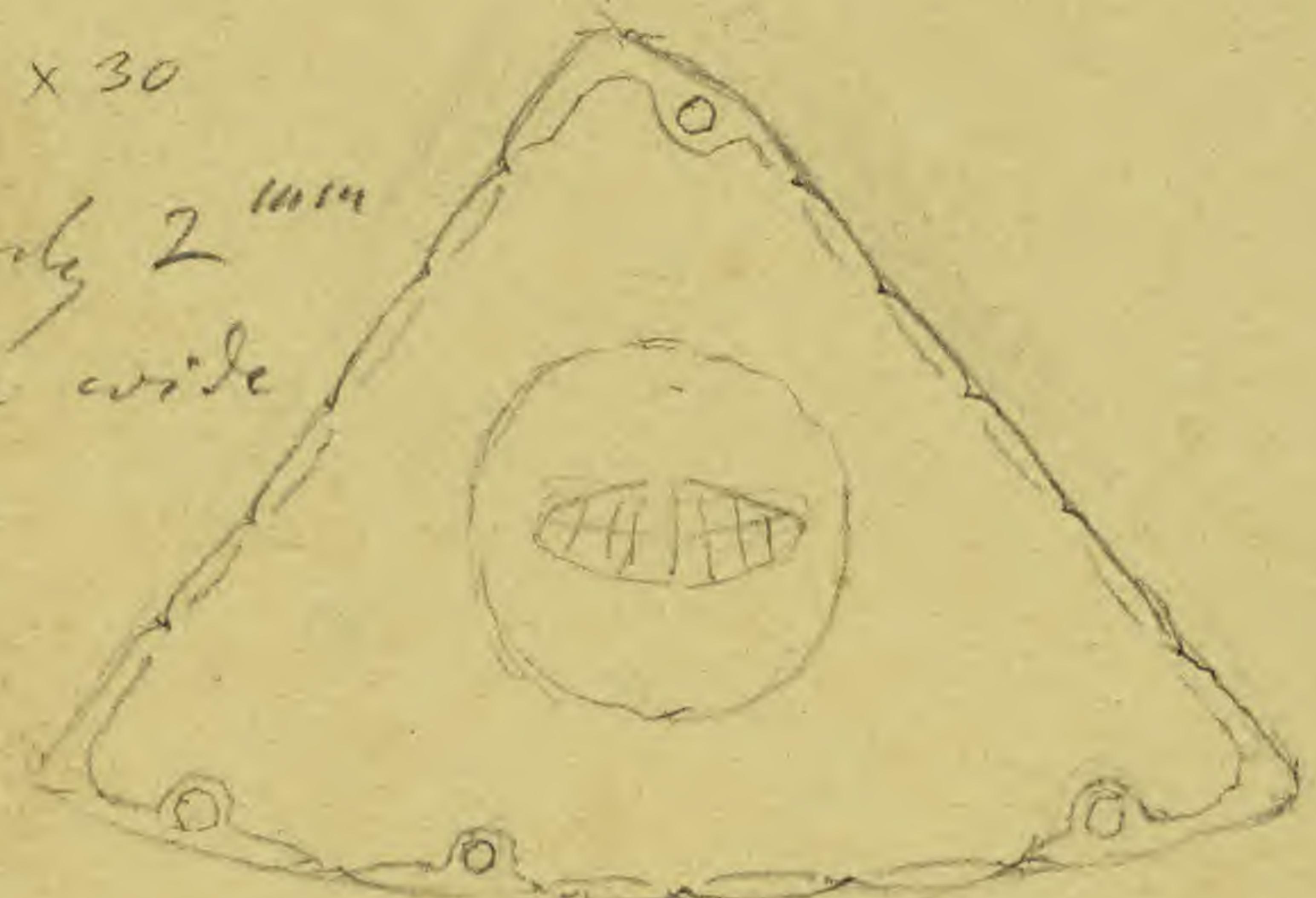
June 23 1878

Thickest leaves of ♀ branch

Calif Bolander

$\times 30$

leaf nearly 2^{mm}
or 1/2" wide



hypoderm = bundle all around
5-6 rows of stomata
on all 3 sides

2 principal ducts, very near
the edges on back,
off 2 accessory ones
all surrounded by hypoderm

$\times 60$



0 1 2 3 4 5 6 7 8 9 10

cm

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No. Date,

Date, 1877

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

100



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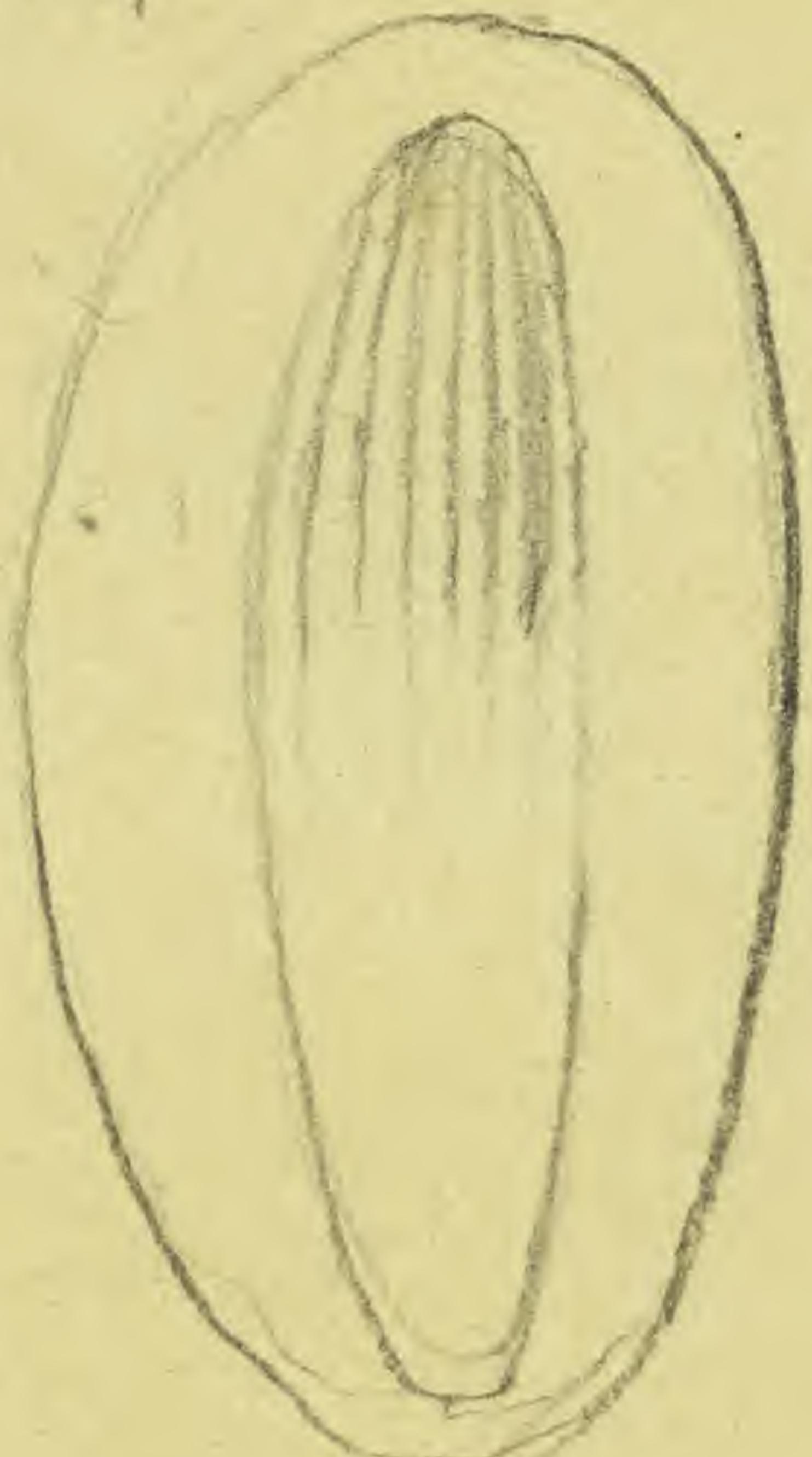
Geo. Ingelmann, M.D.,
Boston, Mass.

No. 3003 Locust Street,

Ranunculaceae

July 10 1879

x4



2 15 cotyl.

1 14 "

1 13 "

BB



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cm

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J.

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